

§ 127.709

unless that person has been instructed on security violation procedures.

§ 127.709 Protective enclosures.

The following must be within a fence or wall that prevents trespassing:

- (a) Impounding spaces.
- (b) Control rooms and stations.
- (c) Electrical power sources.

§ 127.711 Communications.

The marine transfer area for LNG must have a means of direct communications between the security patrol and other operating or security personnel on duty on the waterfront facility handling LNG.

[CGD 78-038, 53 FR 3376, Feb. 7, 1988, as amended by CGD 88-049, 60 FR 39796, Aug. 3, 1995]

Subpart C—Waterfront Facilities Handling Liquefied Hazardous Gas

SOURCE: CGD 88-049, 60 FR 39796, Aug. 3, 1995, unless otherwise noted.

DESIGN AND CONSTRUCTION

§ 127.1101 Piping systems.

Each piping system within the marine transfer area for LHG used for the transfer of LHG must meet the following criteria:

(a) Each system must be designed and constructed in accordance with ASME B31.3.

(b) Each pipeline on a pier or wharf must be located so that it is not exposed to physical damage from vehicular traffic or cargo-handling equipment. Each pipeline under navigable waters must be covered or protected to meet 49 CFR 195.248.

(c) The transfer manifold of each liquid transfer line and of each vapor return line must have an isolation valve with a bleed connection, such that transfer hoses and loading arms can be blocked off, drained or pumped out, and depressurized before disconnecting. Bleeds or vents must discharge to a safe area such as a tank or flare.

(d) In addition to the isolation valve at the transfer manifold, each liquid-transfer line and each vapor return line must have a readily accessible isola-

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tion valve located near the edge of the marine transfer area for LHG.

(e) Each power-operated isolation valve must be timed to close so that it will not produce a hydraulic shock capable of causing failure of the line or equipment. Unless the layout of the piping allows the isolation valve at the transfer manifold to close within 30 seconds without creating excessive stresses on the system, the layout must be reconfigured to reduce the stresses to a safe level.

(f) Each waterfront facility handling LHG that transfers to or from a vessel requiring vapor return during transfer must be equipped with a vapor return line designed to attach to the vessel's vapor connection.

(g) Where two or more LHGs are loaded or unloaded at the same facility, each manifold must be identified or marked to indicate each LHG it handles.

(h) Each pipeline used to transfer flammable liquids or vapors must be provided with precautions against static, lightning, and stray current in accordance with API RP 2003.

§ 127.1102 Transfer hoses and loading arms.

(a) Each hose within the marine transfer area for LHG used for the transfer of LHG or its vapors to or from a vessel must—

(1) Be made of materials resistant to each LHG transferred, in both the liquid and vapor state (if wire braid is used for reinforcement, the wire must be of corrosion-resistant material, such as stainless steel);

(2) Be constructed to withstand the temperature and pressure foreseeable during transfer, with a MAWP not less than the maximum pressure to which it may be subjected and at least 1030 kPa gauge (149.4 psig);

(3) Be designed for a minimum bursting pressure of a least five times the MAWP;

(4) Have—

(i) Full-threaded connections;

(ii) Flanges that meet ANSI B16.5; or

(iii) Quick connect couplings that are acceptable to the Commandant;

(5) Be adequately supported against the weight of its constituent parts, the LHG, and any ice formed on it;